

HENRY NELCH & SON CO.

800 S. NINTH

SPRINGFIELD, ILLINOIS.

*For Brighter Homes...* **INSULUX**  
**GLASS BLOCK**





Insulux Glass Blocks (sometimes called glass bricks) are hollow, partially evacuated masonry units of water-clear pressed glass. They are available in three sizes and in a number of face designs. They are laid by masons in a manner similar to brick with standard tools and mortar.

## Facts about Insulux Glass Block

This booklet is designed to show many of the proven uses for Insulux Glass Block in homes; to give basic construction details applying to these uses; and to explain the benefits of glass block in home construction.

Although Insulux is inherently beautiful, The American Structural Products Company does not recommend it to home owners for appearance alone, but rather for its practical value as a masonry wall that transmits light.

### Extra light for homes

Of necessity, comparisons are made between Insulux panels and conventional windows; however, glass block is not offered as a substitute for windows, but as a means of making homes lighter and brighter—of providing extra light at points in a home where ordinary windows are not practical.

### Many practical values

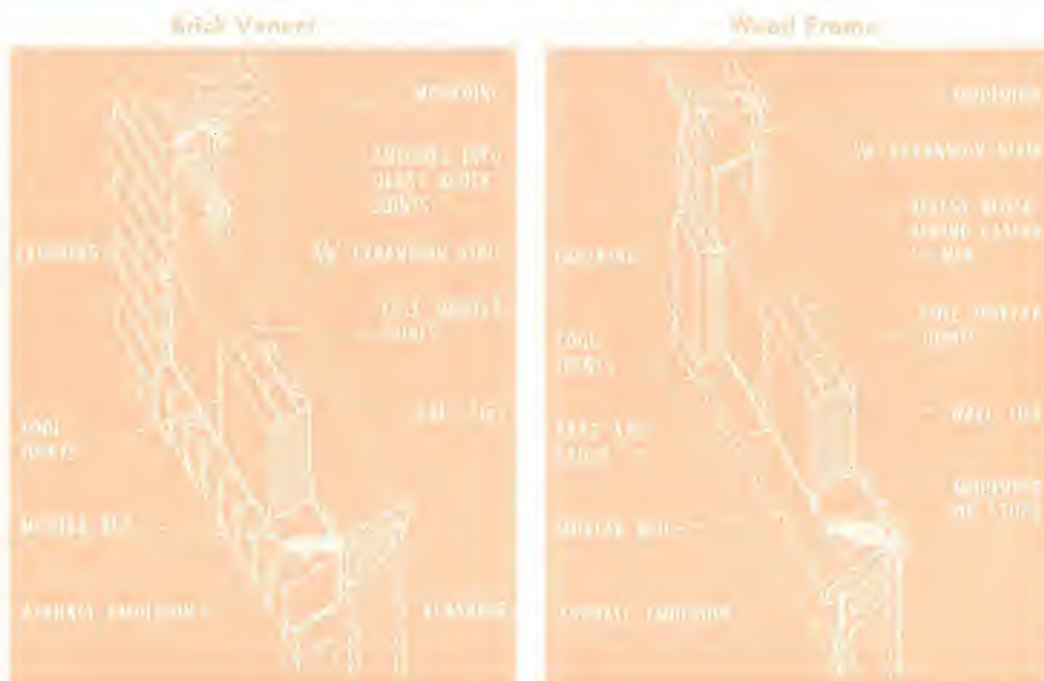
Panels of Insulux provide both light and privacy. Insulating value is high—less heat loss in winter, less heat gain in summer than with single glass. The smooth faces are readily cleaned and do not absorb moisture, dirt or grease. Even under the severe conditions found in bathrooms, laundries and kitchens, glass block cannot rot, rust or corrode.

Only a few of the possible home uses for Insulux Glass Block can be shown—those shown have been tested for practicality and for economy in the average small home.

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## TYPICAL CONSTRUCTION



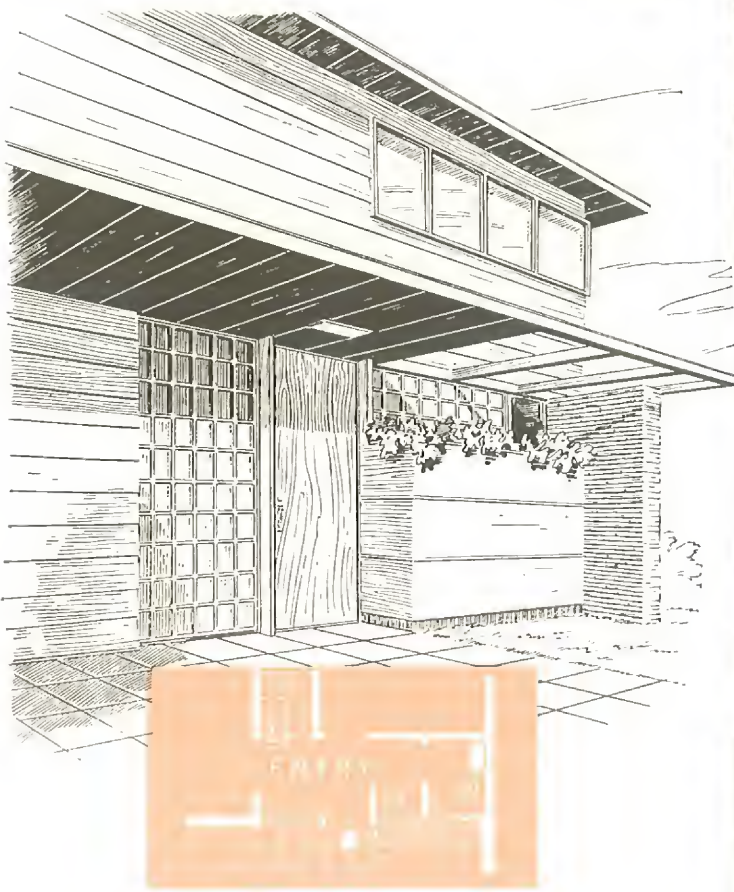
STANDARD CONSTRUCTION—PANELS OVER 25" x 7"  
(For Panels under 25" x 7" see page 13)

Insulux Glass Block can be installed in either frame or masonry construction. Two methods can be used. The first, *Standard Construction* is shown above. This method is used when panels are over 25" x 7" or over 5' wide or 7' high. Expansion strips, wall ties and anchors are required

as shown above and on pages 6, 8, 10, 12 and 13.

For panels under 25" x 7" or less than 5' wide or 7' high, *Simplified Construction* may be used. This method does not require expansion strips, wall ties or anchors. Details are given on page 13.

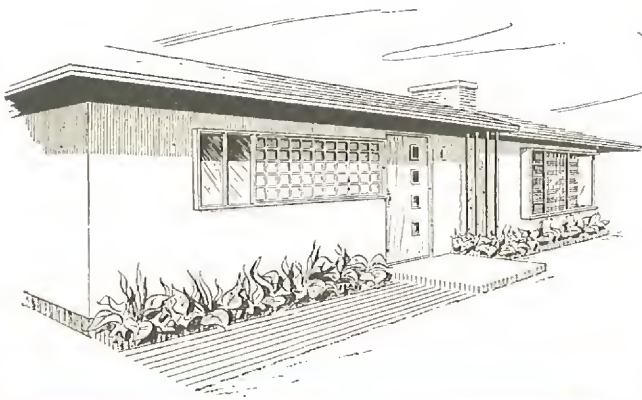




The Glass Block panel at the left of the door daylights both hall and stairs. The smaller panel at the right brings light to the closet and lavatory and yet maintains necessary privacy. A small sash ventilates the lavatory.



Appearance of the entrance to a small home is enhanced by a decorative panel of Insulux Glass Block. The several sketches on this page illustrate practical and economical architectural treatments.



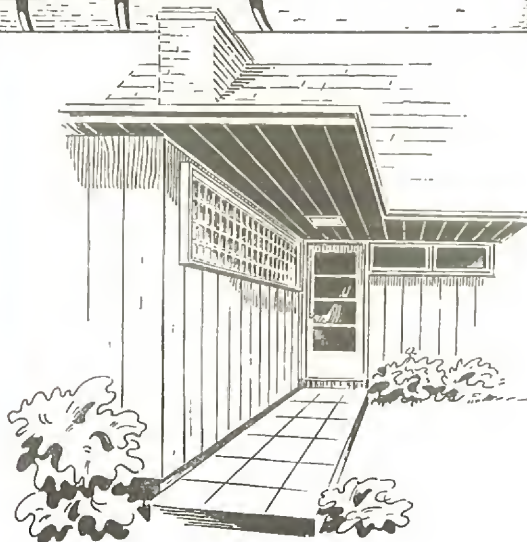
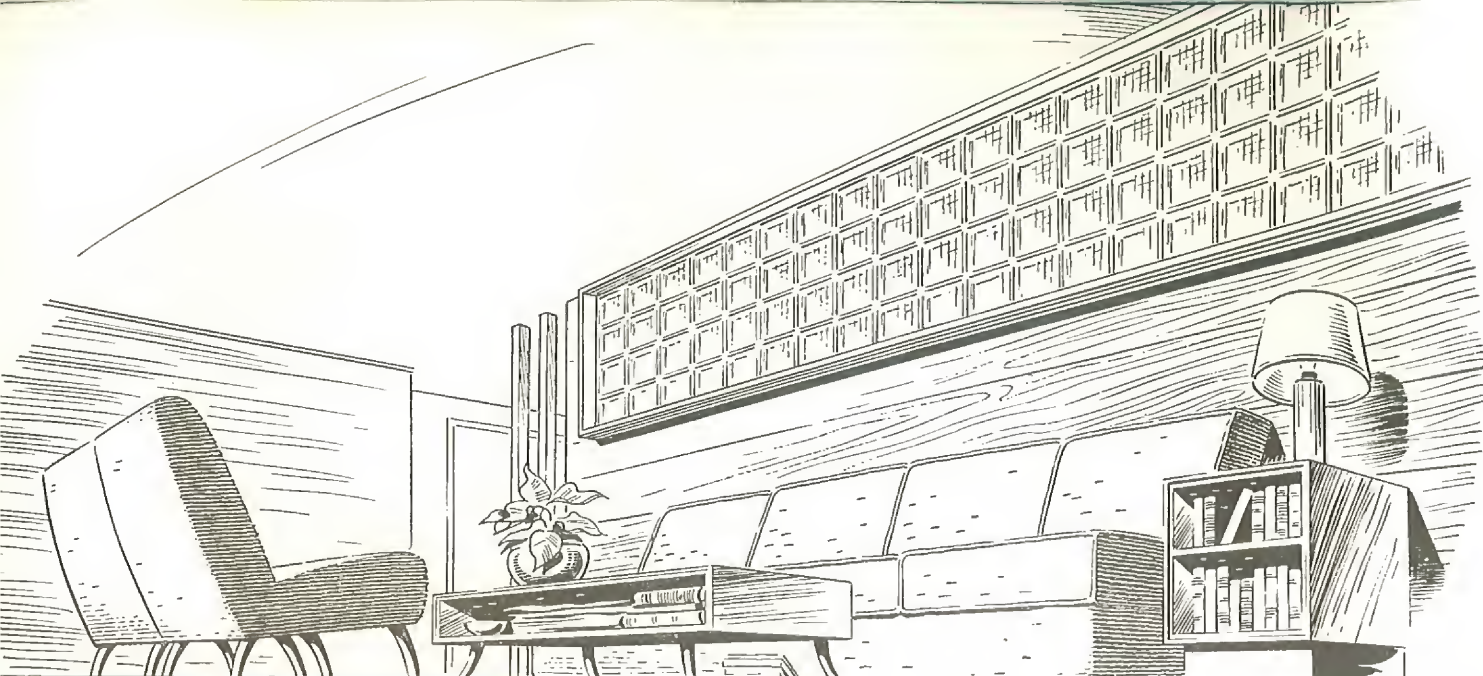
When good planning locates the kitchen or other service areas near the entrance hall, Insulux can be used to daylight these rooms and at the same time exclude a visitor's view of the service areas.



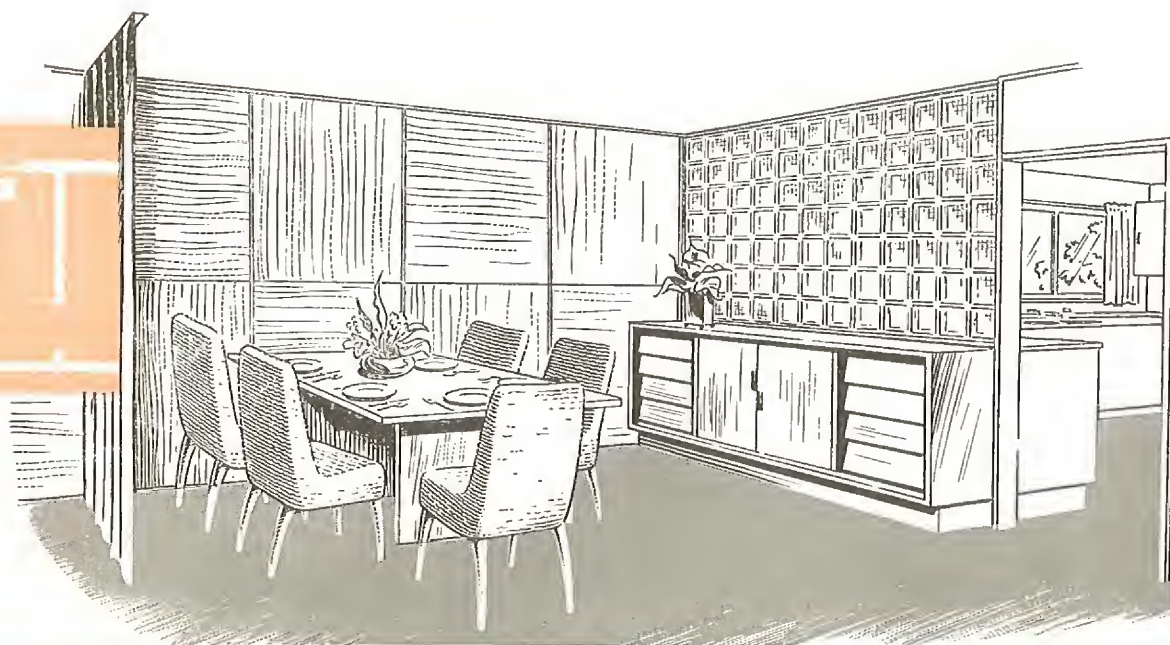
Light and privacy combined with beauty and utility—the Insulux panel daylights the entrance-hall, stairs and free-standing wardrobe.







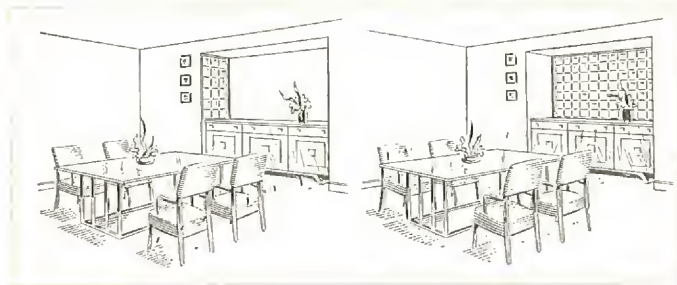
A horizontal Insulux panel provides additional usable wall space and the height of panel gives maximum light distribution. Insulux eliminates drafts—no screens are required. Attractive from the exterior at night when room is illuminated, the panel also lights approach to the entrance.



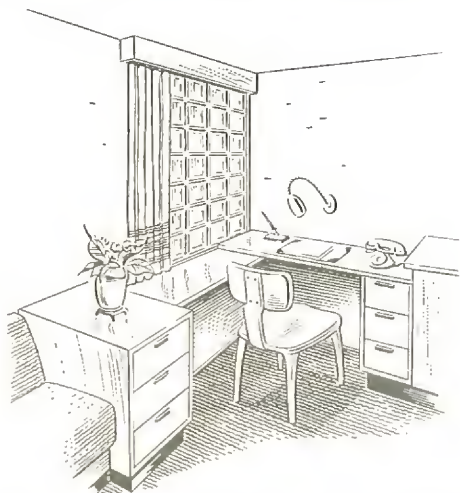
Beauty in the dining room and in the kitchen, an easily-cleaned wall which hot grease from the stove will not stain. Light-

transmitting partitions of glass block make small rooms appear larger—and much more attractive.





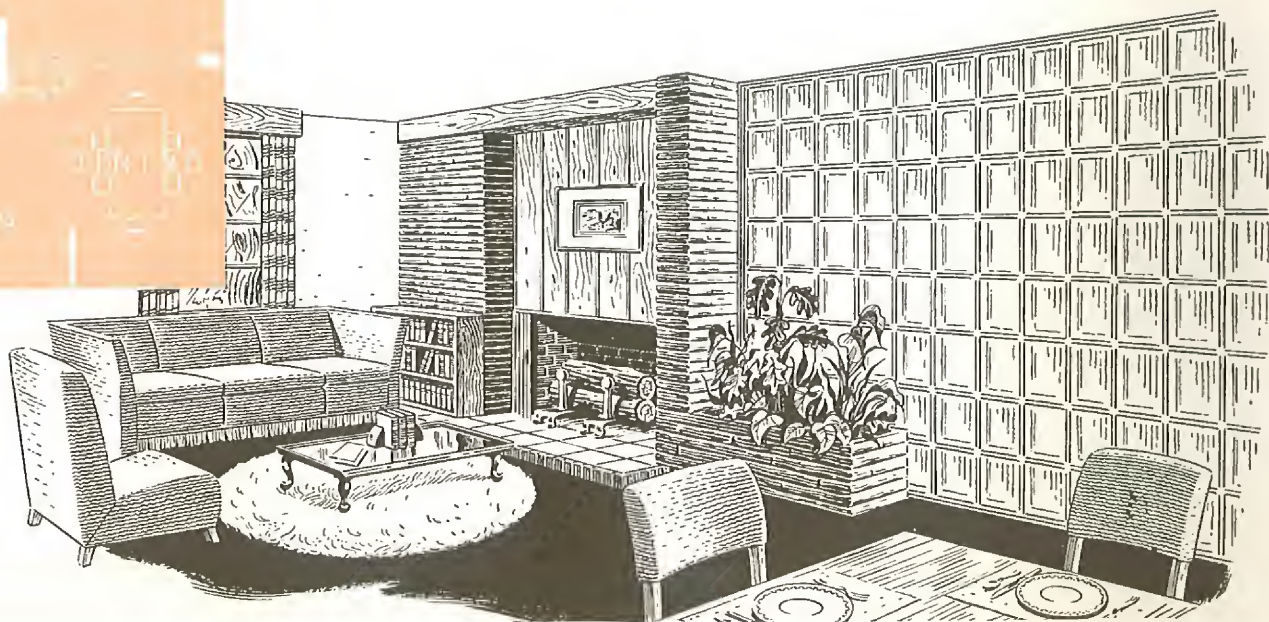
Both of these methods of lighting a dining room bay provide privacy—admit softly diffused *extra* daylight.



A panel of Insulux provides softly diffused daylight for this desk corner. A drape lends color and decoration though it is not required for shading—even on sun exposures—if design No. 363 is used.



Extra light with privacy for living and dining rooms can be attractively built into a home with Insulux Glass Block. Shown is a floor-to-ceiling panel of block No. 416. Additional ideas for these two important rooms are featured in the sketches.



Insulux can frequently be used to solve the problems of providing light and privacy in the home on a narrow lot. The plan above illustrates this need so often faced by the small home designer. An Insulux panel, which is translucent but not transparent, helps provide the solution.

It supplies necessary light and yet maintains the privacy so desirable in the living-dining area. Insulux panels protect the family from the neighbor's view but shut out unattractive exterior sights without loss of daylight. Ventilation and vision can be provided where wanted.



## Kitchen Details



HEAD "A"



WINDOW SILL "B"



MULLION "C"



SILL "D"

## Alt. Counter Detail



SILL "E"

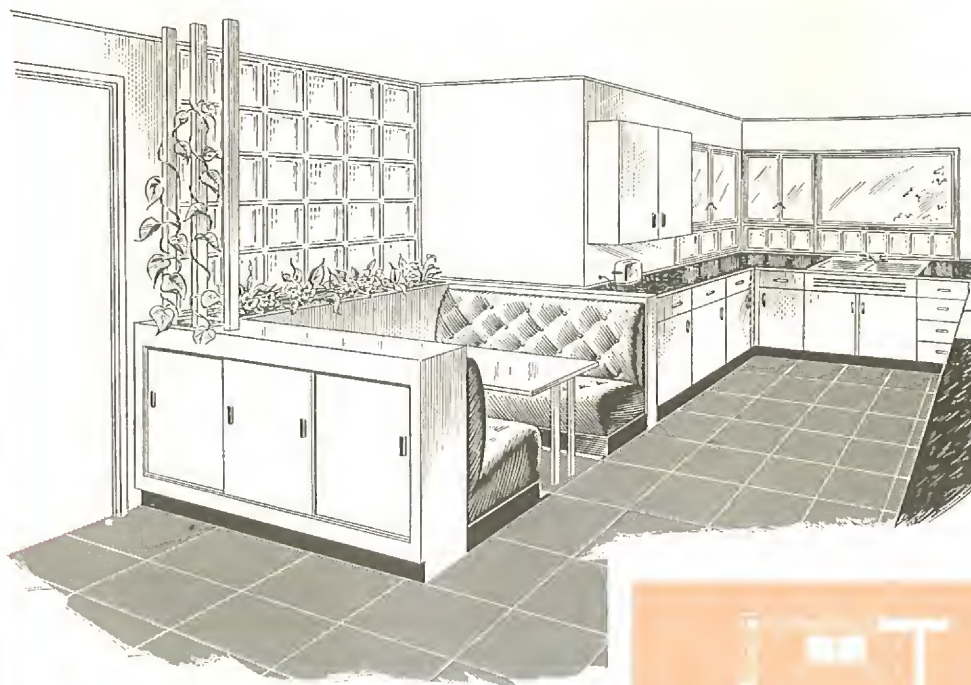
## Interior Panel



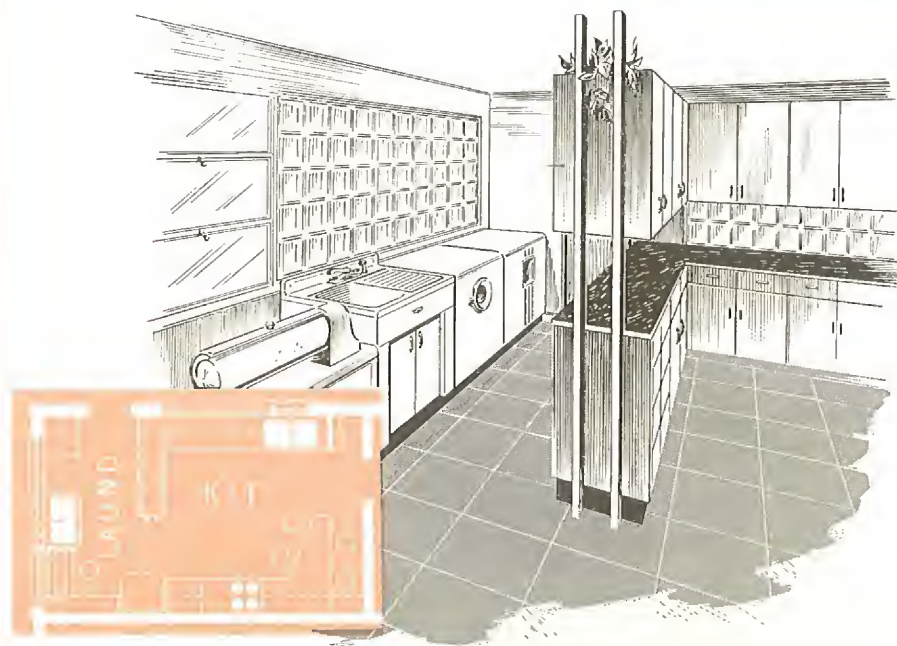
JAMB SILL "F"

Expansion joints may be omitted at joints of interior partitions.

SCALE 1/4" = 1'-0"

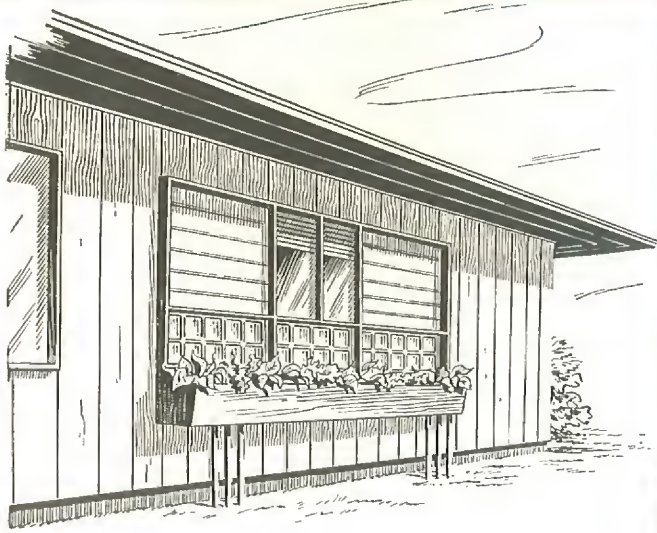


A panel of Insulux Glass Block makes a light and bright combination kitchen and dinette—a particularly desirable feature for the home on a small lot. Plants in boxes do well when protected from cold drafts by walls of Insulux. If space does not permit use of window boxes, mortar joints can be drilled to take plantholders.

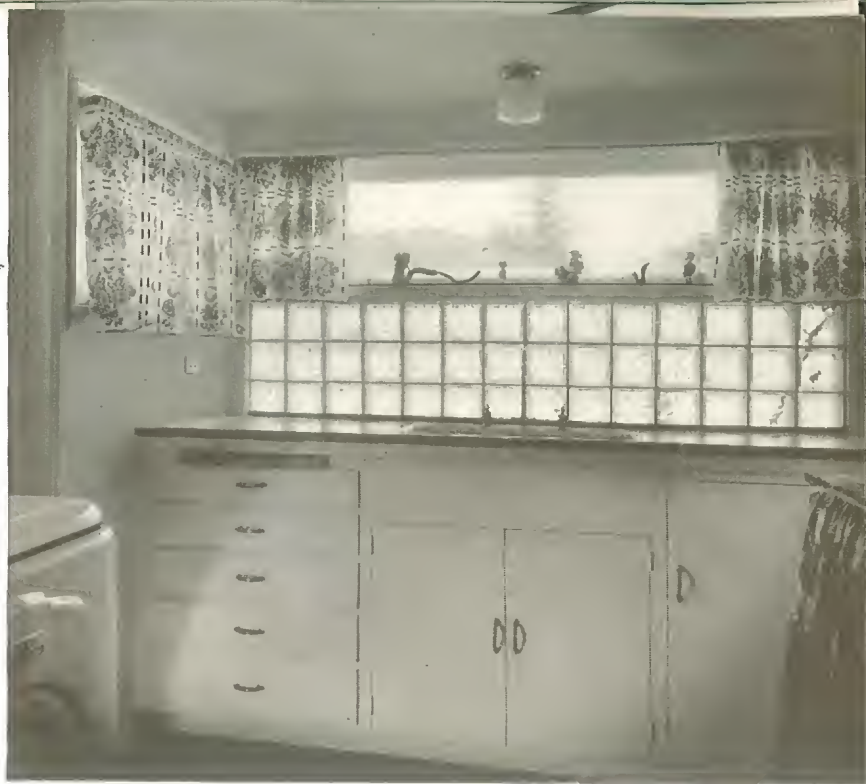


Insulux panels are not affected by the severe moisture conditions which exist in laundries. The glass block panel above the "wet" laundry equipment in this combination kitchen-laundry is easy to clean and will maintain a sanitary appearance. Vision and ventilation are supplied by the window above the ironer.

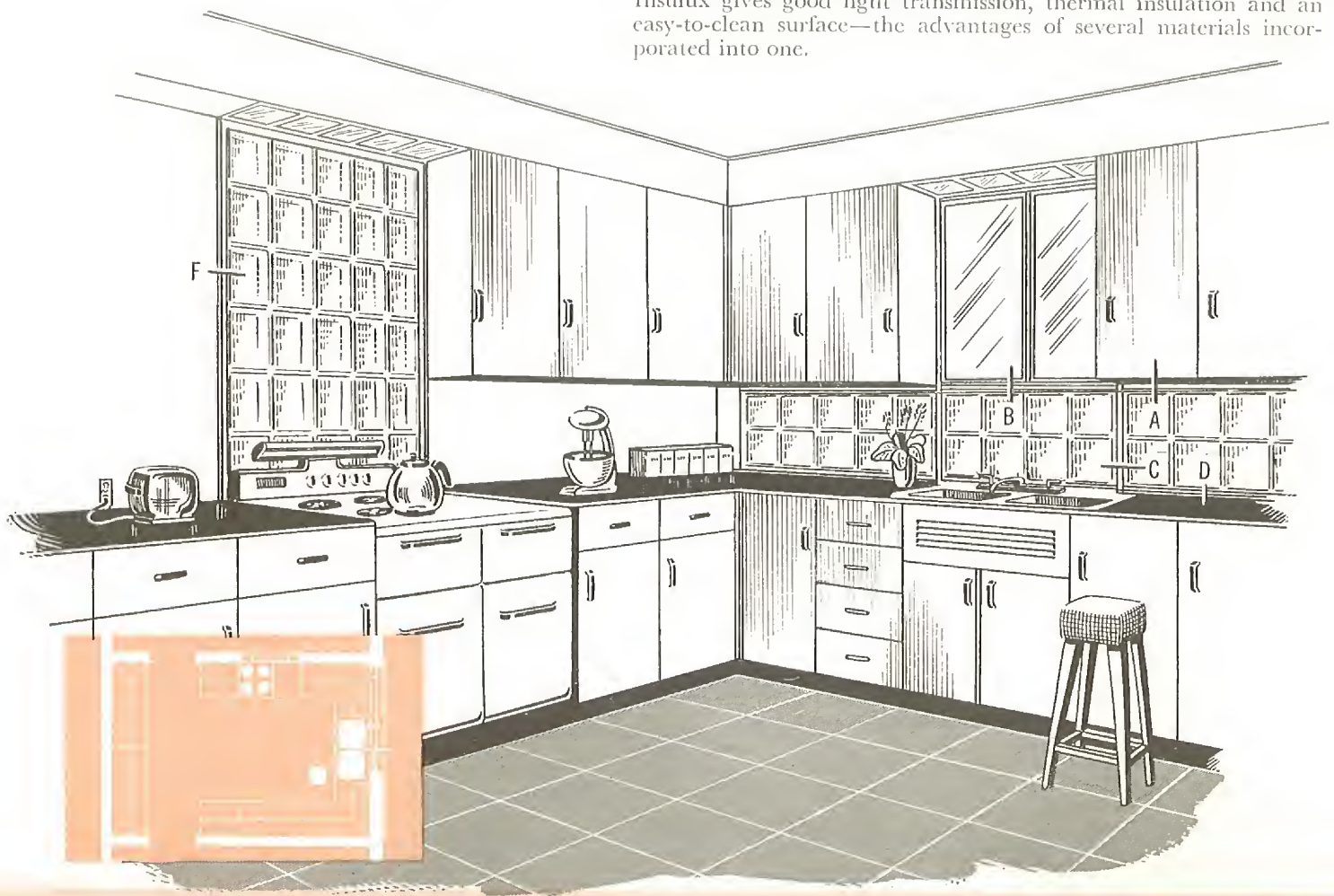




One method of treating the exterior when Insulux is used to light sink and counter top. The framing at window extends through glass block panel to sill for added support. (See detail page 6).



Admirably suited for uses in kitchens, laundries and utility rooms. Insulux gives good light transmission, thermal insulation and an easy-to-clean surface—the advantages of several materials incorporated into one.



The advantages of an Insulux panel above the sink and counter top are immediately apparent. They provide an attractive, easy-to-clean surface without the use of costly wall facing materials and give good daylight at points needed. Its modern appearance fits harmoniously with the new kitchen equip-

ment. Details on page 6 show how standard metal mouldings may be used to join the counter top and the Insulux panel. The area above the stove is one of the most difficult in the home to keep clean but Glass Block—which is not stained or discolored by cooking greases, is easy to clean with a cloth.



## Bath Details



SIZE: 6'0"



SIZE: 6'0"

## Shower Details



SIZE: 6'0"



SIZE: 6'0"

## Ventilating Windows



SIZE: 6'0"

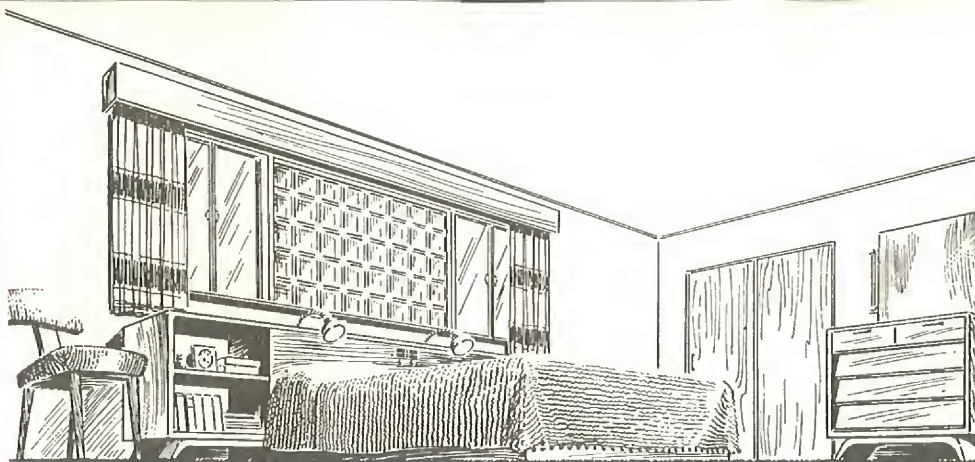


SIZE: 6'0"

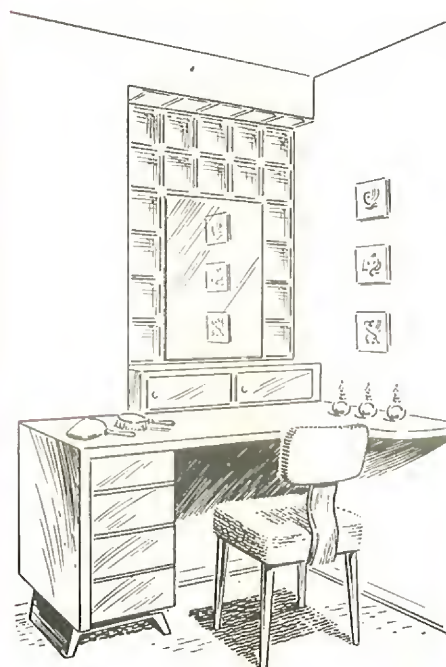


SIZE: 6'0"

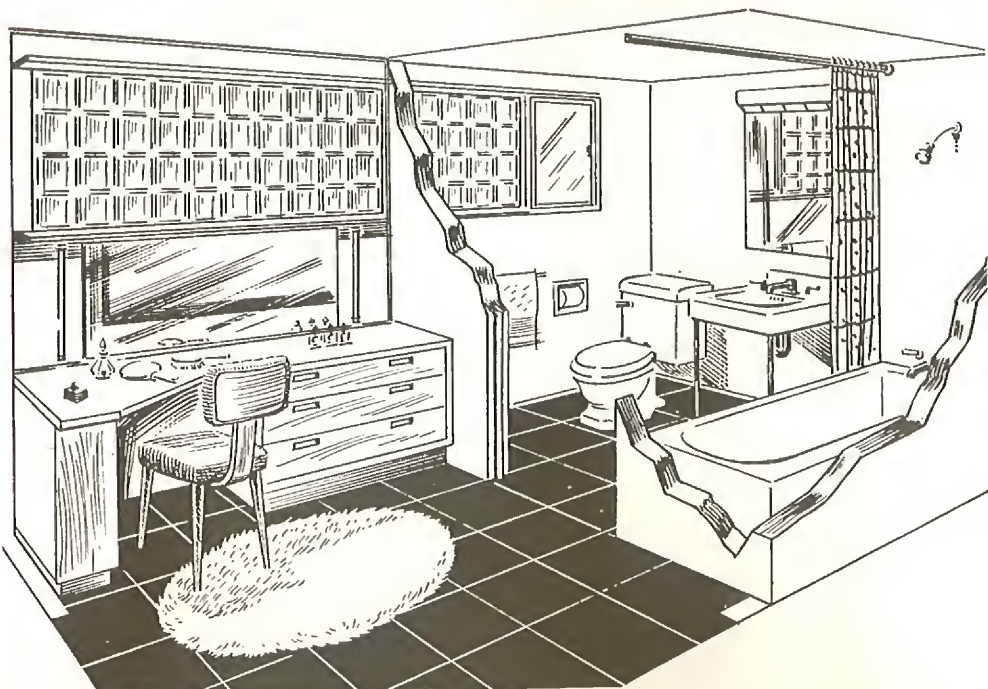
SCALE: 1/8" = 1'-0"



This fenestration scheme provides daylight with vision and ventilation. The Insulux panel admits adequate light with necessary privacy—even when windows at side are draped to exclude view.

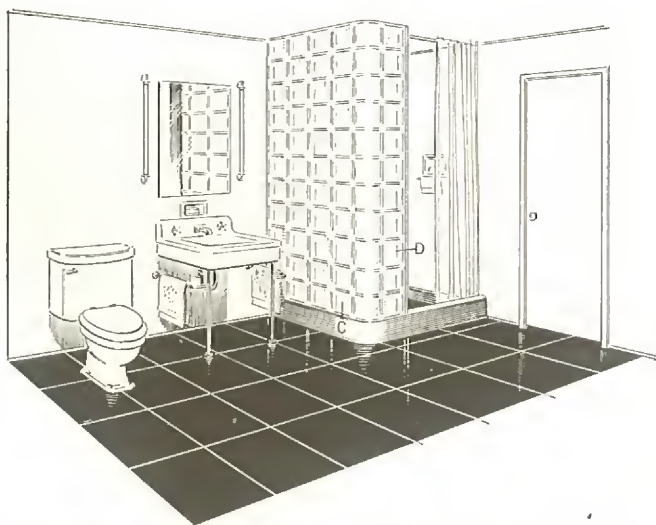


Insulux supplies daylight for the vanity—artificial lighting is not required for day-time makeup. The mirror is attached to the glass block panel by anchors in mortar joints.

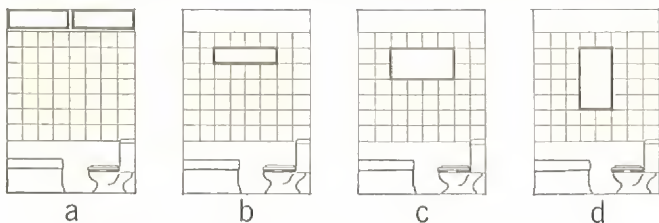


This arrangement joining both entry-hall and bed-room serves a dual purpose: provides a powder room for guests and a bath-dressing room for the owner. The Insulux panel admits adequate daylight but excludes vision. A small sash provides necessary ventilation.





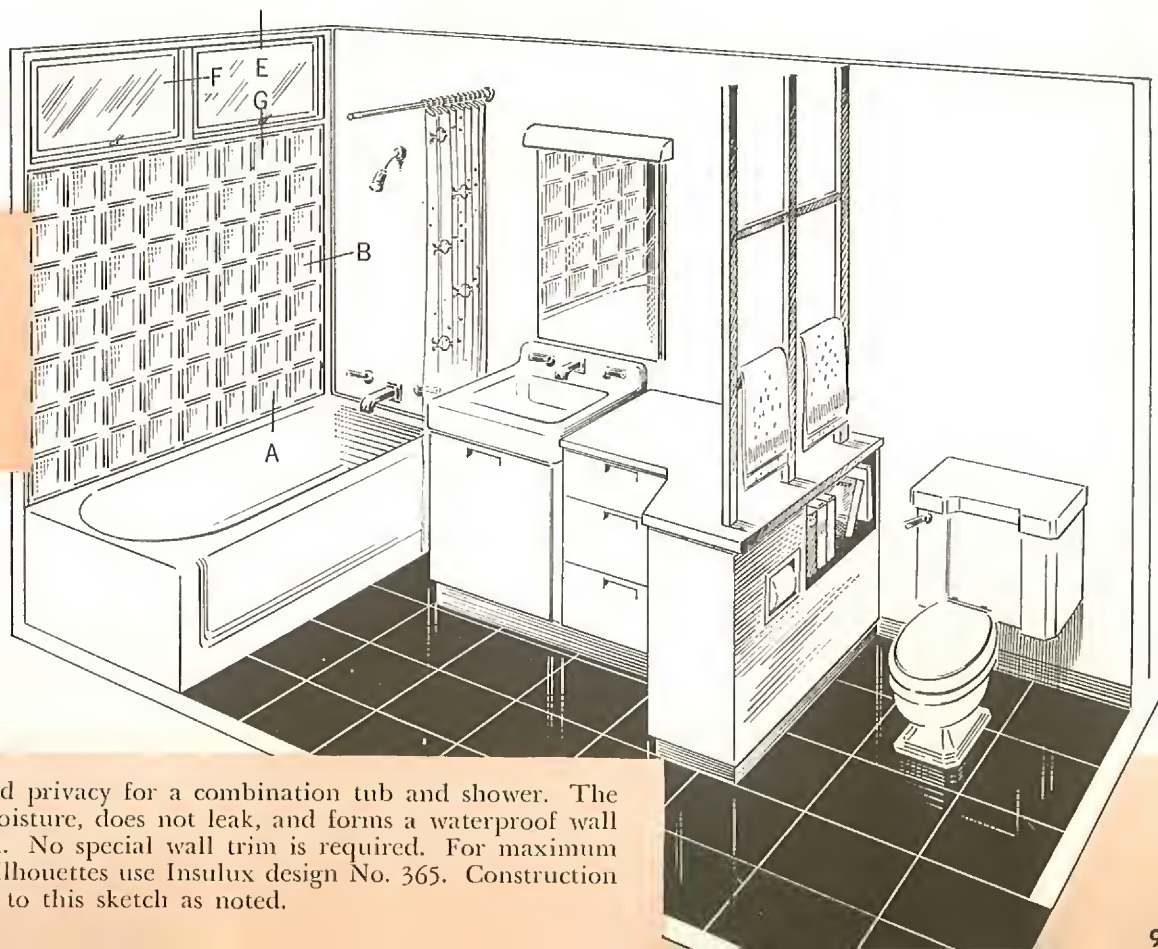
An Insulux shower enclosure is simple to build. It provides an impervious, finished surface on both bath and shower sides—no facing material is required and costs are reduced. Insulux borrows light from bathroom and eliminates need for a shower lighting fixture. Block can be used with standard shower receptors. Use a smooth face block such as No. 316. (See details C & D, page 8.)



Diagrammatic drawings (above) show methods of providing ventilation in Insulux panels. Several sash manufacturers make standard ventilating units for this purpose.



High resistance to extreme moisture conditions, high insulation value and the ability to admit light while barring vision, recommend the use of Insulux panels in bathrooms. Insulux cannot rot, rust or corrode.



Here's adequate daylight and privacy for a combination tub and shower. The Insulux panel absorbs no moisture, does not leak, and forms a waterproof wall requiring no facing material. No special wall trim is required. For maximum privacy and elimination of silhouettes use Insulux design No. 365. Construction details on page 8 are keyed to this sketch as noted.



## Set-in-Wood FOR INTERIOR PARTITIONS



TABLE OF DIMENSIONS

IN. DIM.	W	H	IN. DIM.	W	H
1. 100	100	100	1. 100	100	100
2. 100	100	100	2. 100	100	100
3. 100	100	100	3. 100	100	100
4. 100	100	100	4. 100	100	100
5. 100	100	100	5. 100	100	100
6. 100	100	100	6. 100	100	100
7. 100	100	100	7. 100	100	100
8. 100	100	100	8. 100	100	100
9. 100	100	100	9. 100	100	100
10. 100	100	100	10. 100	100	100
11. 100	100	100	11. 100	100	100
12. 100	100	100	12. 100	100	100
13. 100	100	100	13. 100	100	100
14. 100	100	100	14. 100	100	100
15. 100	100	100	15. 100	100	100
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69. 100	100	100	69. 100	100	100
70. 100	100	100	70. 100	100	100
71. 100	100	100	71. 100	100	100
72. 100	100	100	72. 100	100	100
73. 100	100	100	73. 100	100	100
74. 100	100	100	74. 100	100	100
75. 100	100	100	75. 100	100	100

MAXIMUM PANEL

AREA, 75 SQ. FT.

MAX. WIDTH, 10'

FRAME OPENING DIMENSION PLUS CLEARANCE AT SIDES AND TOP FOR WEDGING



HEAD "A"

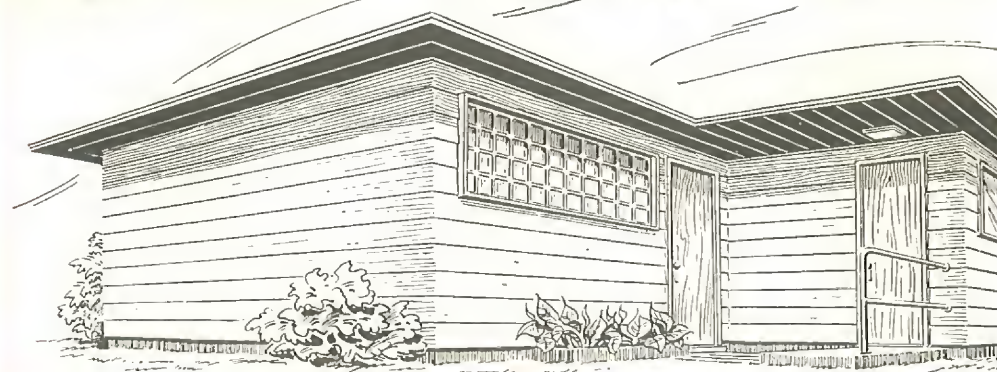


FRAME "B"



BASE "C"

SCALE: 1/8" = 1'-0"

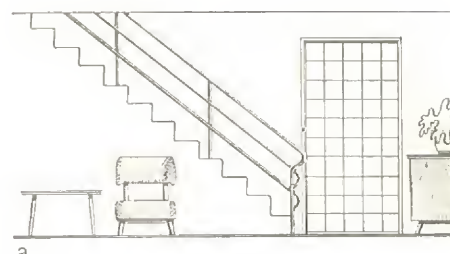


A recreation-room bar of Insulux using "Set-in-Wood" construction is easy to take down and rebuild in a new location.

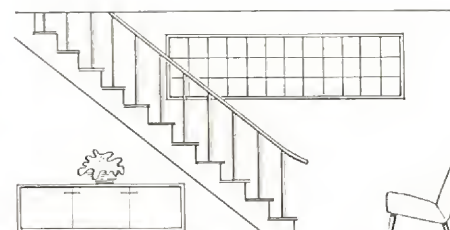
## Set-in Wood

Insulux Set-in-Wood is a prefabricated system for erecting interior panels without mortar. Although these panels do not have all advantages of those set in mortar, such as low sound transmission, the system permits easy dismantling and re-erection. Details at left show basic construction methods for this system. The wood parts required are: continuous strips for horizontal joints, block-high strips for vertical joints, and wedges for the perimeter to lock the panel together. The system is designed for 8" and 12" blocks only. Panel size should be limited to 75 square feet or 10 feet in length. Wood parts are available through Insulux distributors.

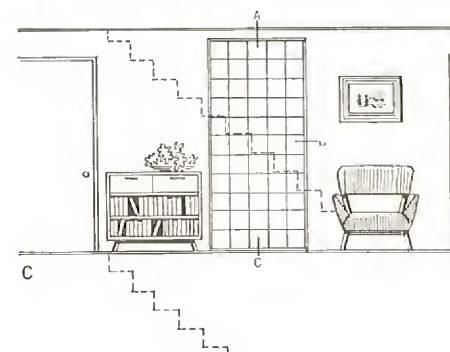
A panel of Insulux is ideal for daylighting garages. Windows are not needed for ventilation and glass block offers many advantages: concealment of unsightly storage areas; protection against break-ins and better light with low maintenance costs.



a



b



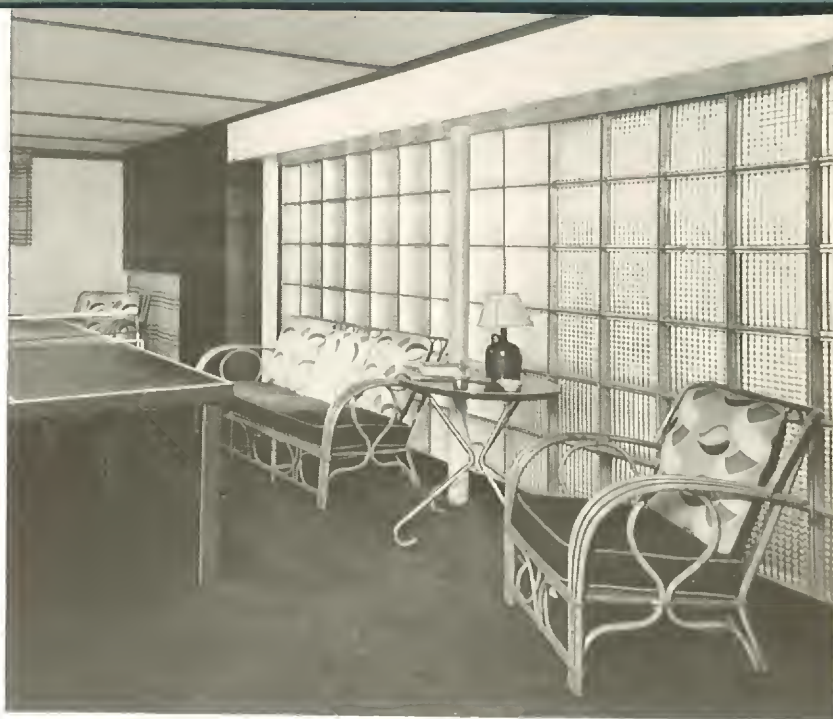
c

Three methods of illuminating stairways are shown in sketches above. Panel "C" borrows light for both basement and second floor stairways from other rooms. Panel is clear of, and does not support stair stringers.

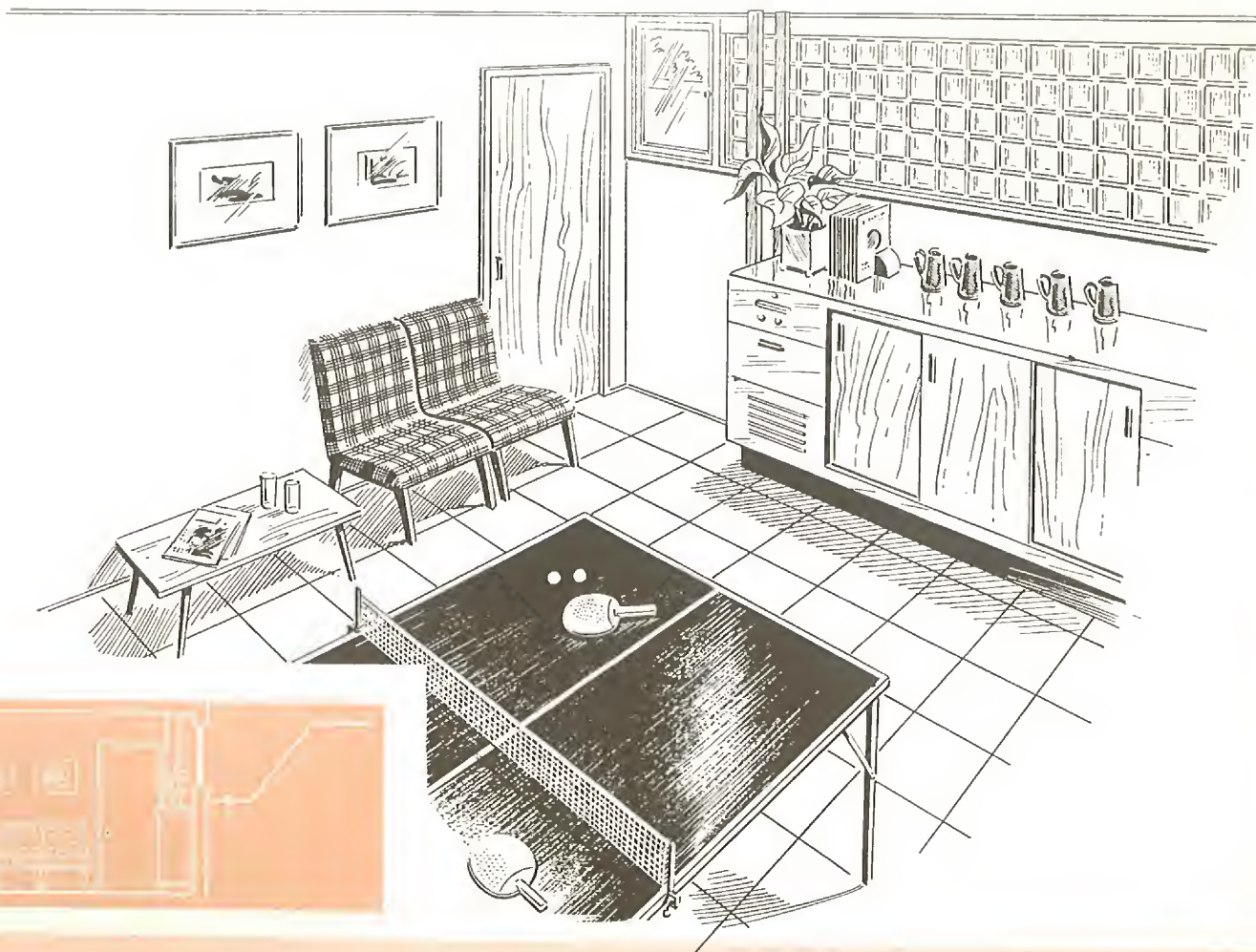




Plan shows how Insulux is used to daylight a typical basement. Openings and areaways are built in usual way: using enough windows for ventilation. Fill the remainder of openings with 8" square glass block: Insulux panels have these advantages: the same structural permanence as the foundation walls, no painting is needed. They do not rust or rot. They provide insulation with good appearance and offer protection against leakage and infiltration. Easy to install—panel dimensions work with concrete block, (See detail F, page 12.)



There are many uses for Insulux in basements: to borrow light between rooms, to bring in light from the exterior, to enhance the appearance of recreation rooms, and to provide easily maintained walls in such rooms as laundries. Insulux makes small rooms appear larger.



A panel of Insulux in the recreation room creates the feeling of an above-grade room. It provides plenty of light with no

unsightly view of the areaway. The sloping area-wall painted white will reflect more light. (See cross section.)

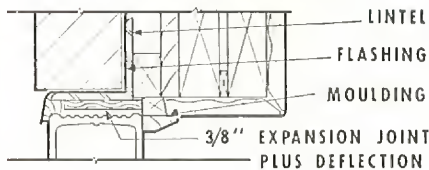


# Typical Details

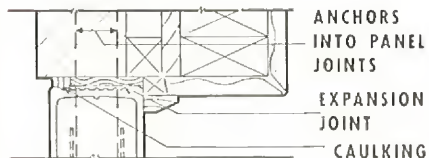
## Key Elevations



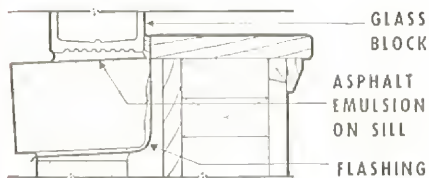
### Brick Veneer



HEAD "A"

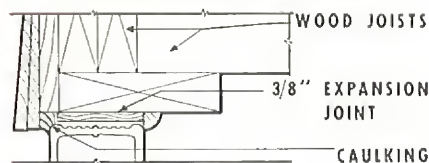


JAMB "B"

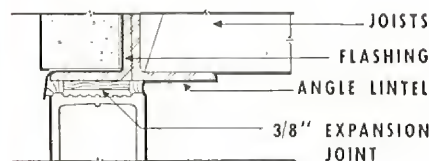


SILL "C"

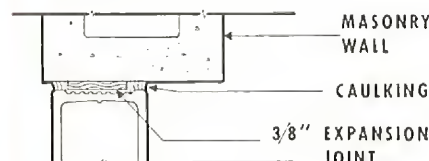
### Foundation Wall



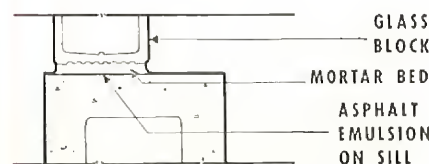
ALTERNATE HEAD "D"



HEAD "D"

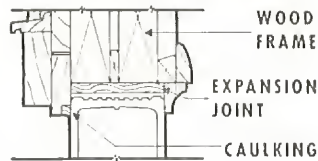


JAMB "E"



SILL "F"

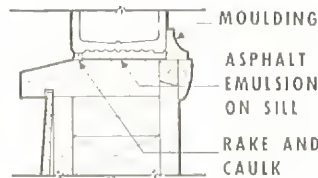
### Wood Frame



HEAD "G"

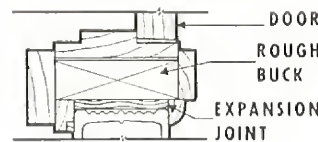


JAMB "H"



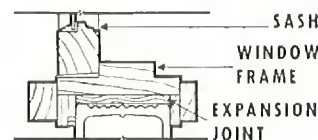
SILL "I"

### Door Detail



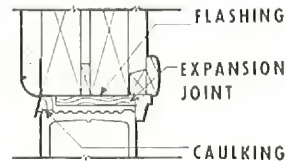
JAMB "J"

### Window Detail



JAMB "K"

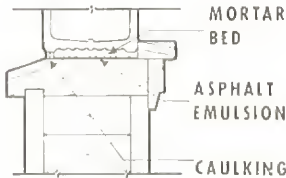
### \*Stucco



HEAD "L"

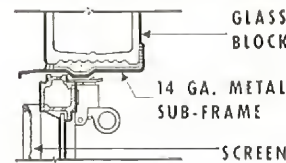


JAMB "M"

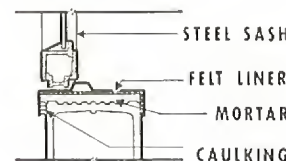


SILL "N"

### Ventilating Sash



HEAD "O"



JAMB & SILL "P"

\*Alter where weather conditions require sheathing

## Typical Details

Details above and on pages 6, 8, 10 show *Standard Construction* for panels over 25'x7'. When panels are under 25'x7' and less than 5' wide or 7' high *Simplified Construction* may be used. Both methods are shown on next page.

For additional information, see your Insulux Distributor or write American Structural Products Company, Toledo 1, Ohio.

SCALE: 1 1/2"=1'0"



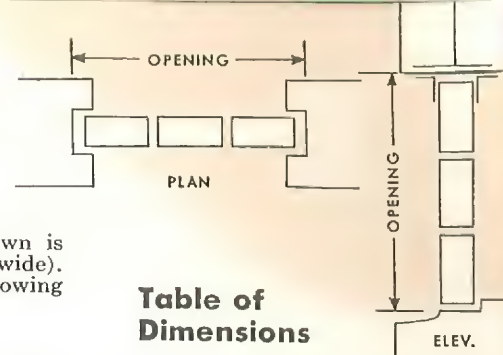
# INSTALLATION

## UNDER 25 □'

"Simplified" construction. Especially for residential construction. Max. area 25□', max. hgt. 7'-0", max. width 5'-0"

## OVER 25 □'

Standard construction. Method shown is suitable for panels up to 100□' (10' wide). For large panels write for catalog showing complete installation details.



## Table of Dimensions

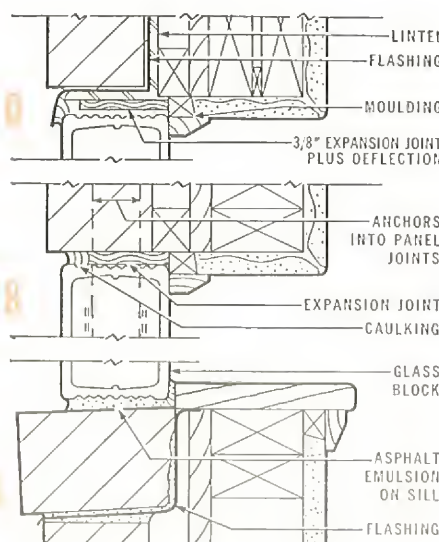
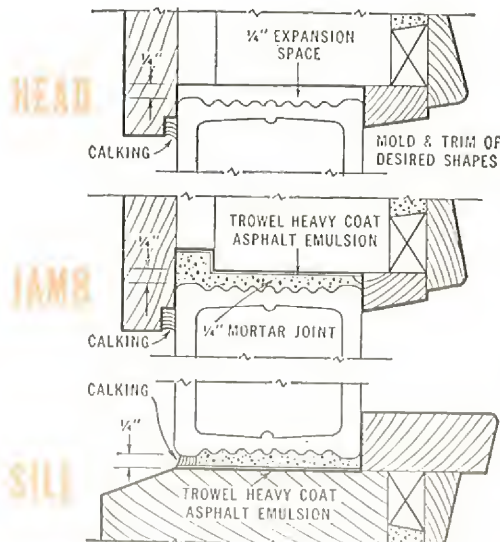
To find opening dimensions, height or width, use table below and add:

<b>Simplified Construction</b>	Height: Table + $\frac{1}{4}$ " + deflection Width: Table + $\frac{1}{4}$ "
<b>Standard Construction</b>	Height: Table + $\frac{3}{8}$ " + deflection Width: Table + $\frac{1}{2}$ "

No. of Units	5 3/4" x 5 3/4" x 3 7/8"	7 3/4" x 7 3/4" x 3 7/8"	11 3/4" x 11 3/4" x 3 7/8"
1	6"	8"	1'-0"
2	1'-0"	1'-4"	2'-0"
3	1'-6"	2'-0"	3'-0"
4	2'-0"	2'-8"	4'-0"
5	2'-6"	3'-4"	5'-0"
6	3'-0"	4'-0"	6'-0"
7	3'-6"	4'-8"	7'-0"
8	4'-0"	5'-4"	8'-0"
9	4'-6"	6'-0"	9'-0"
10	5'-0"	6'-8"	10'-0"
11	5'-6"	7'-4"	11'-0"
12	6'-0"	8'-0"	12'-0"
13	6'-6"	8'-8"	13'-0"
14	7'-0"	9'-4"	14'-0"
15	7'-6"	10'-0"	15'-0"
16	8'-0"	10'-8"	16'-0"
17	8'-6"	11'-4"	17'-0"
18	9'-0"	12'-0"	18'-0"
19	9'-6"	12'-8"	19'-0"
20	10'-0"	13'-4"	20'-0"
21	10'-6"	14'-0"	21'-0"
22	11'-0"	14'-8"	22'-0"
23	11'-6"	15'-4"	23'-0"
24	12'-0"	16'-0"	24'-0"
25	12'-6"	16'-8"	25'-0"
26	13'-0"	17'-4"	26'-0"
27	13'-6"	18'-0"	27'-0"
28	14'-0"	18'-8"	28'-0"
29	14'-6"	19'-4"	29'-0"
30	15'-0"	20'-0"	30'-0"
31	15'-6"	20'-8"	31'-0"
32	16'-0"	21'-4"	32'-0"
33	16'-6"	22'-0"	33'-0"
34	17'-0"	22'-8"	34'-0"

Mortar joints are  $\frac{1}{4}$ "

Weight of Insulux laid up in panels is approx. 20 lbs. s. f.



1  
Apply heavy coat asphalt emulsion 3 1/2" wide and 1/32" thick to the sill and jambs.



2  
Lay Insulux blocks with 1/4" mortar joints (mortar mix 1:1:4). Be sure to fill joints completely with mortar.



3  
Tool joints to smooth finish, clean panel. Remove loose mortar from space at head and caulk as per detail above.

No wall ties, anchors or expansion strip required with simplified construction. Use 6" and 8" blocks only.

1 Apply a coat of Insulux Asphalt Emulsion 3 1/2" wide and 1/32" thick to the sill.

2 Install Insulux Expansion Strips at jambs and heads of openings.

3 Lay glass block, using full mortar joints. Mortar mix: 1 part Portland cement, 1 part pressure hydrated lime and 4 parts sand. Use a stiff consistency.

4 Install Insulux Wall Ties in horizontal joints every 24" vertically, regardless of size of block.

5 Anchor panels at jambs with Insulux Anchors on 2' centers, bedded in glass block mortar joints, and fastened to jambs.

6 Tool joints and give blocks preliminary cleaning before mortar reaches final set.

7 Calk perimeter of panel with Insulux Calking Compound. Where wood sills are used, sill joint should be raked and calked. Head should be flashed wherever head joint is exposed.

8 Give panel final cleaning.

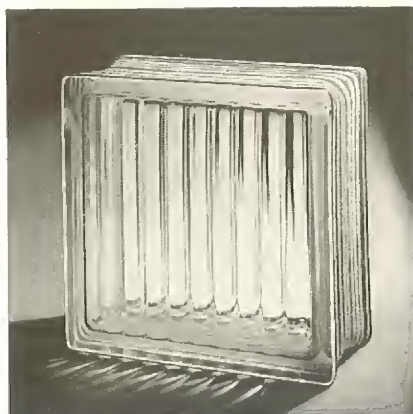
Not load bearing, glass blocks require openings framed as for windows. Clearance for lintel deflection should be provided at head.



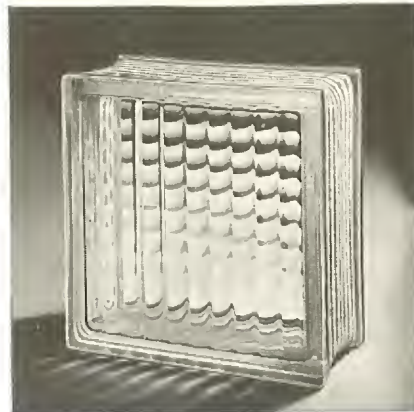
# INSULUX

## GLASS BLOCK

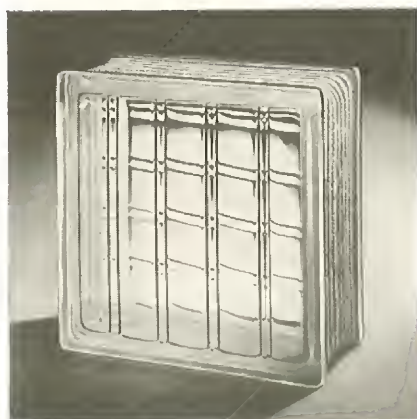
**1951 DESIGNS.** Do not use previous catalogs. All designs, shapes and sizes of Insulux Glass Block subject to change without notice.



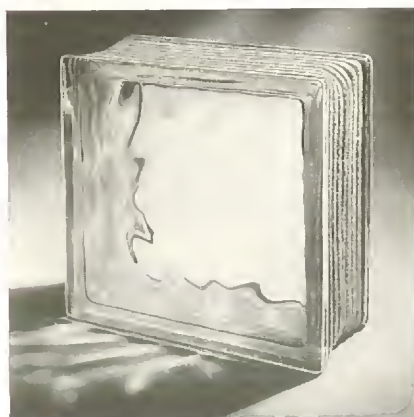
DESIGN NO. 07



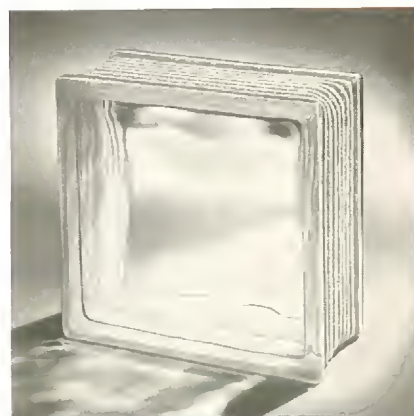
DESIGN NO. 16



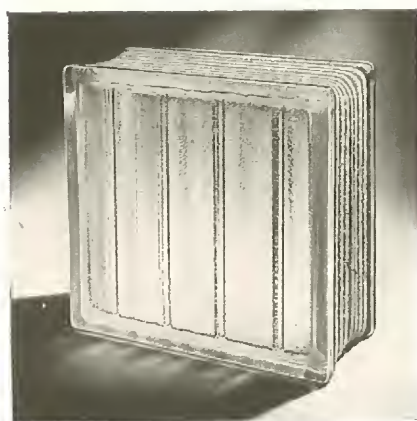
DESIGN NO. 17



DESIGN NO. 30



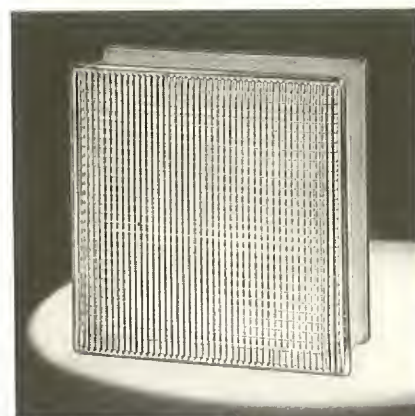
DESIGN NO. 31



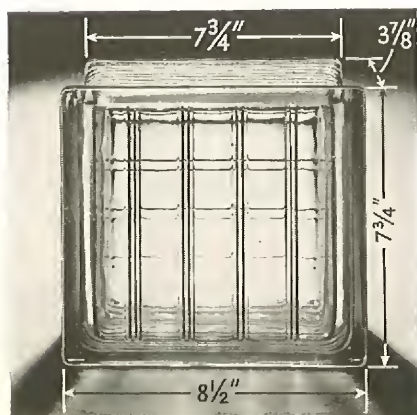
DESIGN NO. 40



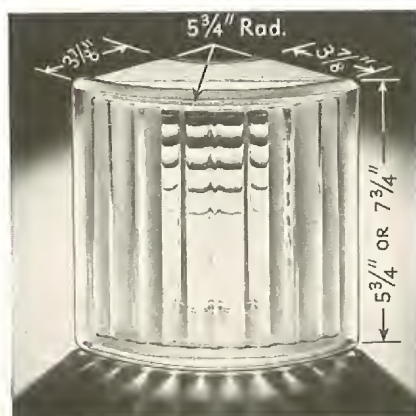
DESIGN NO. 70



DESIGN NOS. 63 and 65



RADIAL BLOCKS



CORNER BLOCKS





Order by  
These  
Numbers

DESIGN NUMBERS

SQUARE  
BLOCKS

CORNER  
BLOCKS

Use two 5 $\frac{3}{4}$ " corner  
blocks with  
11 $\frac{3}{4}$ " square

RADIAL BLOCKS

DEGREE OF "PRIVACY"

SMOOTH-FACE

RIBBED-FACE

To match corner blocks  
Lay with ext. ribs vertical

# INSULUX GLASS BLOCK

DECORATIVE  
AND  
GENERAL  
PURPOSE

FUNCTIONAL BLOCKS  
FOR LIGHT CONTROL.  
Write for full data.

Number per carton

Lbs. wgt. per carton

Retail price, carton

07	207	307	407				Limited	•	•	Use No. 16 corner and radial blocks.
16	216	316	416	216-C	316-C	316-R	Fair	•	•	Ribs vertical one interior face, horizontal on other interior face.
17	217	317	417	217-C	317-C	317-R	Limited	•	•	Flutes vertical one interior face, horizontal on other interior face.
30	230	330	430	230-C	330-C	330-R	Very Limited	•		Forms circular design. Lay in random pattern.
31		331	431				Very Limited	•		Random design gives effect handmade glass. Use corner block No. 30.
40	240	340	440	240-C	340-C	340-R	Good		•	Interior face stippled, exterior ribs are wide.
70		370				370-R	None	•		Gives limited vision. May be inset in panels of other designs.
63		363			363-C	363-R	Complete		•	Directs light above horizontal for diffusion from ceiling down on work. New optical principle accepts light from wide sun angles and spreads it sidewise in room. Use only above eye level.
65		365			365-C	365-R	Complete		•	
	▲12	▲8	▲4	▲12	▲8	▲8			•	Companion to number 363. Does not direct light up, but spreads it evenly in horizontal and vertical planes. Use below eye level with 363. Diffusing qualities give excellent decorative lighting effects.
	43	55 58	63	49½	44½	58				

## INSULUX ACCESSORIES

\*Approx. quantity to  
lay 1000 pcs. block

Based upon a panel  
10'x10' (100 S.F.).  
Since conditions  
vary widely, quan-  
tities are not guar-  
anteed. See other  
side for "Simpli-  
fied Construction".



**ASPHALT  
EMULSION**

Asphalt dispersed  
in water. Apply to  
sill to break bond  
between sill and  
mortar.



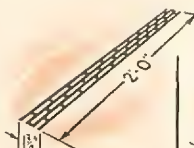
**CAULKING  
COMPOUND**

Use a gun-grade  
non-hardening  
type to water-  
proof expansion  
joints at heads  
and jambs. Not  
furnished by In-  
sulux.



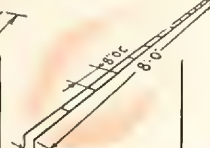
**EXPANSION  
STRIPS**

Use at jambs and  
heads of panels. A  
resilient glass fiber  
pad 4½" x ¾" x  
25".



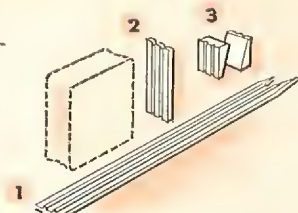
**PANEL  
ANCHORS**

Anchors panels  
where no chase  
used. Imbed in,  
nail or bolt to  
jambs. 20 ga. galv.  
1½" x 24".



**WALL  
TIES**

To reinforce pan-  
els. Imbed in hor-  
izontal mortar  
joints every 24"  
vertically, regard-  
less of size of block.



**SET-IN-WOOD**

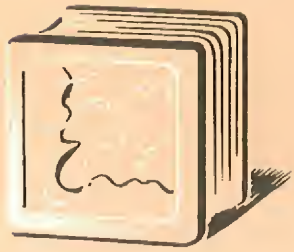
A prefabricated system for erecting  
interior partitions without mortar.  
Erection details sent on request.

1	1	1	2	2	3
10'	8'	6'	7¾"	11¾"	Pr.
strips	strips	strips	vert.	vert.	wedges

\*

5¾" Blocks	¼ Gal.	1½ Gals.	38 pcs.	20 pcs.	13 pcs.					
7¾" Blocks	⅓ Gal.	2¾ Gals.	67 pcs.	36 pcs.	23 pcs.					Write for erection details
11¾" Blocks	⅔ Gal.	6 Gals.	150 pcs.	80 pcs.	100 pcs.					
How Packed	1, 5 Gal., Qts.	Not furnished by Insulux	72 pcs. (150 lin. ft.) to carton	25 to bundle	8'0" long 50 to bundle	12 to a bundle	144 cart'n		72 Pr. Cart'n	
Retail Price										
	(PER GALLON)		(PER PIECE)	(PER BUNDLE)	(PER BUNDLE)	(PER BUNDLE)	(PER CARTON)			





# INSULUX

**GLASS BLOCK**

**AMERICAN STRUCTURAL PRODUCTS COMPANY**

**TOLEDO 1, OHIO**

SUBSIDIARY OF OWENS-ILLINOIS GLASS COMPANY

